we are going to extend ourselves and in due course of time we are going to be the directing factors in regard to the care of the public and the care of the public health rather than the politicians and that's the battle today, gentlemen. They are taking the control and the care of the public health and the private patients, if you please, out of the hands of the medical profession and turning it over to the politicians. That is the condition that confronts us, and it behooves us to become active and prevent the further development of this program.

TUBERCULOSIS IN SAN QUENTIN

By Leo L. Stanley, M.D. San Quentin

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Discussion by Robert A. Peers, M. D., Colfax; Carl R. Howson, M. D., Los Angeles; F. M. Pottenger, M. D., Monrovia.

DISCUSSION

ROBERT A. PEERS, M.D. (Colfax School for Tuberculous, Colfax).—There are, to me, among other things, two most interesting features in Doctor Stanley's report. The one is historical; the other is the practical method of attack on tuberculosis, instituted when, in 1913, he became resident physician at San Quentin.

First, the historical aspect: As one reads through the

First, the historical aspect: As one reads through the report, he is struck by the manner in which it portrays so clearly the changing viewpoint on tuberculosis from 1851 and through the decades which follow. One can make a

few comments on these changes.

San Quentin was established in 1851, thirty-one years before the announcement by Koch of the discovery of the tubercle bacillus, and more than forty years before the dis-

covery of the roentgen ray.

Thus it is not strange to note the references to the crowding together, in confined areas, of the sick and the well without respect to contagion; likewise, also, the suggestion in one report that tuberculosis falls in the class of hereditary disease. Nor is it strange that pleurisy was considered a separate disease entity and that deaths were recorded as due to this symptom.

The report of 1885 makes no reference to the discovery of the tubercle bacillus, which is not surprising to those who remember how long a time elapsed before Koch's find-

ings were universally accepted.

The report of 1890 coincides with the pandemic of influenza in 1889-1890, and the recognition of the relation of influenza to the reactivation of tuberculosis is recorded. The quotation from this year affords the first evidence in all these reports of the recognition of the infectiousness of tuberculosis. Likewise, in this period, we note an everincreasing number of consumptives among those sent to penal institutions, which probably reflects a growing awakening in the ranks of the medical profession, with an increase in diagnostic acumen.

Just one other note on the historical aspect of this subject: In the preceding paragraph is noted the recognition of the infectiousness of tuberculosis when Doctor Eagle protested against making Folsom Prison a "sanitarium," and against the foisting "upon it the burden and care of the bacillus-bearing criminal," saying, "strict isolation must be resorted to." Here creeps in the first note of fear of the consumptive; a fear that was to grow until, before many years, the tuberculous were shunned as lepers, and treated

shamefully and cruelly.

Now let us examine Doctor Stanley's solution of the problem, beginning in 1913 and continuing to date. From the first there was recognition of the double responsibility he faced:

1. The protection of the entire prison population—the public health problem.

2. The care or alleviation of the patient's illness—the medical and surgical problem.

The public health problem in the control of tuberculosis, as in the control of every infectious disease, resolves itself into case-finding and isolation. Fortunately for the prison population, Doctor Stanley had the active sympathy and support of a truly great prison administrator, Warden Johnston. The partnership of Doctor Stanley and Warden Johnston was to work miracles. A thorough physical examination of all entrants was established. This meant early case-finding. A special hospital for the tuberculous was prepared and equipped. This meant isolation.

The modern treatment of the sick tuberculous implies proper medical supervision, good hospital care, rest, and time. At San Quentin all these factors in recovery have prevailed. Good hospital care, with its implied sanitary surroundings, fresh air and an abundance of good food, have been supplied. The element of time has been taken care of by the judiciary. The rest factor has been supplied by hospital beds, plus the surgical-rest features of pneumothorax, phrenic interruption, thoracoplasty and other measures in the capable hands of Doctor Stanley and his associates, for rest of the diseased lung.

It might be well here to add two other historical notes gleaned from the record: In 1879 the death rate at San Quentin, mostly from pulmonary disease, was 17 per 1000. Today the death rate from tuberculosis is 2 per 1,000.

Anyone who knew San Quentin before the days of Doctor Stanley, and who knows the San Quentin of today, can see in the story of tuberculosis at that institution a wonderful example of what can be done with poor mental and physical material, in extremely unsatisfactory surroundings, when the problem is approached with enthusiasm, humanitarianism, and intelligence.

Carl R. Howson, M.D. (1930 Wilshire Boulevard, Los Angeles).—To convey a complete picture of the horrible conditions existing in the prisons of civilized countries during even the past century it would be necessary to describe the indescribable. Only by a consideration of one phase at a time can we conceive of the situation.

Doctor Stanley has given us a startlingly graphic account of conditions as related to one communicable disease. He has sketched only the outlines. Actual experience with tuberculosis enables one to fill in some of the details.

He has, however, scarcely given proportionate space to his own accomplishments in remedying the formerly intolerable conditions and in providing adequate, modern, and humane facilities for the care of the tuberculous prisoners. Whatever one's criticisms of certain elements in our modern penalogic administration may be, there can be nothing but commendation in this case.

It is interesting to note that since the beginning of the century the reduction in mortality rate has been practically in the same ratio as that of the general population. With all modern aids, their present mortality rate still approximates that of the general population in 1900.

mates that of the general population in 1900.

One wonders whether, with this group of individuals, it will decline any faster than the much slower decline it seems we have now to expect in the general death rate

from this disease.

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F. M. POTTENGER, M. D. (Pottenger Sanatorium, Monrovia).—Doctor Stanley has given us an excellent history of tuberculosis in San Quentin.

It is very interesting to note that in the early years most of the tuberculosis was among Indians and Mexicans, and that it was the greatest cause of death in the institution.

In 1883, out of thirteen deaths eight were caused by tuberculosis; in 1885, out of twenty-nine deaths eighteen were caused by tuberculosis and three by scrofula; in 1889 and in 1904 one-half of all deaths were caused by tuberculosis.

In 1913 the picture changed. Doctor Stanley took charge of the work and brought to the institution modern health measures. He was especially tuberculosis-minded. A new hospital was built, and an examination of the chest of new arrivals was instituted. The result is most graphically shown. In 1913 there were sixty cases of tuberculosis in a population of 1910; and in 1934, after the measures for the control of tuberculosis had been existent for twenty years, there were only forty cases in a population of 6,400.

At the present time there is made a complete examination, with x-ray, of every entrant into the prison.

^{*} Part I of Doctor Stanley's paper (its text) appeared in last month's issue, December, 1938, on page 436.

Under the old condition of crowded unsanitary quarters such as existed fifty years ago, the death rate from tuberculosis was 17 per 1,000, while in 1937 it was 2 per 1,000. This still shows, however, that there is an exceptionally large number of the inmates of San Quentin who have tuberculosis. This makes the death rate from tuberculosis among the prisoners about equal to or a little greater than that of those who live in unsanitary quarters in their homes. While the death rate from tuberculosis in the general population of the United States is about 53 per 100,000, the death rate among negroes and Mexican city dwellers still runs from three to five times that figure; and in certain northern cities the death rate among negroes is seven times as great as that among the whites.

This contribution gives us a glimpse of what can be accomplished among an unfortunate group of people when

treated humanely.

THE LURE OF MEDICAL HISTORY†

PLAGUE EPIDEMICS IN SAN FRANCISCO: HISTORICAL NOTES

By George H. Evans, M.D. Berkeley

PART III*

THIRTY years have elapsed since the events here narrated occurred. Probably the dominating rôle played by the State Medical Association in conceiving and carrying to fruition the organization of the Citizens' Health Committee is forgotten, even by the older medical men. It was, I believe, the first time that the organized profession of California has ever undertaken an active and leading part in the carrying out of any public health emergency measure. Had not such a radical measure been undertaken, however, epidemiologists generally concede that a federal quarantine would certainly have befallen San Francisco.

PLAGUE: WHAT OF THE FUTURE?

What of the future? Has the work of the Citizens' Health Committee been productive of permanent results? Is San Francisco immune from the danger of further visitations of plague epidemics? At the last meeting of the Executive Committee of the Citizens' Health Committee the attention of the chairman was called to the necessity of some form of perpetuation of the Committee's activities if its work was to endure.

That present methods of eradicating rats in San Francisco are not entirely successful is indicated by the frequency with which they are observed. To what extent are householders generally observing the rigid rules laid down and strictly enforced in 1908 regarding the keeping and disposal of garb-

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* In three parts. Part I appeared in the November issue, on page 383. Part II appeared in the December issue, on page 458.

An interesting sidelight on the infestation of rodent animals in California and other Pacific and Western States is revealed in the article, Sylvatic Plague, by Karl F. Meyer, M.D., and B. Eddie, M.A., which appeared in California and Western Medicine, December, 1935, on page 399.

If space permits, an interesting chapter on the part taken by the United States Public Health Service in the San Francisco plague outbreak, from the pen of Medical Director A. M. Stimson, will appear in the February Issue. age and protection of all food from rodents? Of the rigid sanitary and building ordinances adopted in 1908 by the Board of Supervisors at the direction of the Citizens' Health Committee, how many of them are today strictly enforced?

PLAGUE TODAY WIDELY SCATTERED AMONG PACIFIC COAST RODENTS

The danger becomes the more apparent when it is realized that plague is today enzoötic in California over widespread foci among the wild rodents, particularly the ground squirrel. Foci of infection exist as far north as Modoc County, as far south as Los Angeles, as attested by the specimens sent to the State Hygienic Laboratory. Nineteen counties have been found to date to be infested with squirrel plague. Numbers of sporadic human cases have occurred in these infected counties, the last one in Tulare County in 1934.

PNEUMONIC PLAGUE OUTBREAKS IN OAKLAND AND LOS ANGELES

A particularly disquieting aspect of this squirrel infection is the frequency of the occurrence of pneumonic plague. The outbreak of the epidemic in Oakland in August, 1919, was clearly demonstrated to be of squirrel origin. It caused twelve deaths, two of whom were physicians. In the Los Angeles epidemic in 1924, out of thirty-two pneumonic plague victims thirty died.

Unsurmountable difficulties beset the epidemiologist in any attempt to overcome such widespread infection. Dr. W. H. Kellogg, Chief of the State Hygienic Laboratory, with his great experience on this subject, has truly said: "These endemic foci, constituted as they are of wild rodent infection, are, so far as anyone knows at present, permanent and everlasting."

DANGERS INHERENT IN THE ENDEMIC RODENT FOCI

It is apparent that there exists in California at present a natural reservoir of plague in these wild rodents, comparable to the historic foci in various Asiatic sections. Such endemic foci have more recently been established in Manchuria, accounting for the pneumonic epidemics which occurred there in 1910 and 1916. Plague may lie dormant in these endemic foci for considerable intervals between epidemic or pandemic spread. It is possible that in such intervals a relative immunity among the rodents may be established. That this may be true in California at present is suggested by the large number of infected fleas recently examined at the State Hygienic Laboratory which have been combed from the bodies of rodents free from infection. In the period from April 1 to August 1 of this year, of 3,416 squirrels examined at the State Hygienic Laboratory, only eight were found to be infected.

VIGILANCE AND PROTECTIVE MEASURES NEEDED

Discouraging though complete eradication of infection from these widespread endemic foci may be, we should be ever vigilant in the furtherance of preventive measures to protect our populous centers from such epidemics.